



State of New Jersey

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CREATION, RESTORATION OR ENHANCEMENT FOR A FRESHWATER WETLAND MITIGATION PROPOSAL

CHECKLIST FOR COMPLETENESS

(5/17/02)

These are the application requirements for an administratively complete proposal package for an onsite or offsite freshwater wetland mitigation proposal. Please read each section and check the box next to each area after you have fully completed the information for each requirement that applies to you.

Please provide five copies of the following information and plans.

- ☐ 1. An introduction describing the wetland mitigation proposal. The introduction must include the following:
 - a. The type of permit that requires you to perform wetland mitigation (include a copy of the permit);
 - b. How many acres of wetland mitigation are you required under N.J.A.C. 7:7A-15 or permit to create, enhance and/or restore;
 - c. The goals of the mitigation project in terms of wetlands types, values, and functions, and a discussion of how the mitigation proposal will satisfy those goals. (e.g., The goal of the wetlands mitigation project is to establish a young palustrine forest surrounding an emergent wetland and open water pond, which provides flood water retention in the impacted watershed, fish and wildlife habitat, etc.);
 - d. The reason why the mitigation site is an appropriate site for meeting the goals in c. above, and the aspects of the site that will ensure the success of the mitigation project; and
 - e. A copy of USGS quad map(s) showing the location of the permitted activity and showing the mitigation site with the state plane coordinates of the mitigation site. The accuracy of these coordinates should be within 50 feet of the actual center point of the site. For linear mitigation projects, the applicant shall provide

State plane coordinates for the end-points. For linear mitigation projects 2000 feet in length and longer, the applicant shall supply additional coordinates at each 1000 foot interval.

- ❑ 2. A description (e.g., size, type, vegetation, hydrology, wildlife use, etc.) of the wetlands that are being destroyed or disturbed by the permitted activity.
- ❑ 3. Photos of the proposed mitigation site, showing topographic, vegetative, stream and wetland features.
- ❑ 4. The names and addresses of all current and proposed owner(s) of the proposed mitigation site.
- ❑ 5. The lot, block, municipality and county of the proposed mitigation site. This information must be clearly visible on the front page of the proposal and must also be placed on the mitigation plans as required under item 14.
- ❑ 6. A description (e.g., size, type, vegetation, hydrology, wildlife and adjacent land use etc.) of the proposed mitigation site. Avoid the need for hard engineering controls such as concrete spillways and dams when designing the mitigation project. If such structures are necessary to retain sufficient wetland hydrology then the Program recommends the applicant examine the suitability of the site for wetland mitigation.
- ❑ 7. A projected water budget for the proposed mitigation site. The water budget should detail the sources of water for the mitigation project as well as the water losses. The budget should include the following regional information:
 - the daily rainfall for a non-event driven, normal, wet and dry year;
 - if appropriate the depth of the seasonal high water table from collected monitoring well data. The data should be taken several times a week between February and July and then weekly for the rest of the year;
 - if appropriate, the water levels of the stream that supplies water to the mitigation area. The water levels should be collected from stream gauge data taken at least weekly following any major storm event. This should include the average high and average low for the stream; and the mean monthly temperature.

The projected water budget should document that an ample supply of water is available to create, enhance, or restore wetland conditions, as applicable. The water budget must contain sufficient data to show that the mitigation project will have sustained wetland hydrology indefinitely in the future. It is strongly suggested that you obtain a copy of following publication: Pierce, Gary J. 1993. *Planning hydrology for constructed wetlands*. Wetland Training Institute, Inc. Poolesville, Md. WTI 93-2. 49pp. This publication is currently being used by the Department as guidance when evaluating a proposed water budget and may be purchased from the Wetlands Training Institute located at P.O. Box 1022, Poolesville, MD 20837-0099 phone number (301) 972-8112.

- ❑ 8. Existing soil profiles including the location of soil borings on the proposed mitigation site.
- ❑ 9. A detailed discussion of the substrate you propose to create for the mitigation site (e.g. How will the substrate of the site be prepared? How much topsoil will be added? Is the pH appropriate?). Successful mitigation requires that a minimum six inches of topsoil or A-Horizon be used or retained on the mitigation site. If the natural top soil from the site is to be used, it must have at least 8% organic carbon content (by weight) incorporated into the A-horizon for sandy soil and for all other soil types the topsoil must have 12%

organic carbon content. If topsoil is imported onto the site it must consist of equal volumes of organic and mineral materials. Do not include the application of lime in your planting specifications unless absolutely necessary (liming a site may cause a more favorable environment for invasive species).

- ❑ 10. A landscape plan showing the proposed vegetative community on the proposed mitigation site that includes the following:
 - the species;
 - quantity of each species;
 - the spacing of all plantings;
 - the stock type (bare root, potted, seed); and
 - the source of the plant material.

The transition area required as part of the mitigation site under N.J.A.C. 7:7A-14. must also be planted. The landscape plan must identify the proper time to plant and must indicate any appropriate substitutions. If bare root stock is used, it must be planted in the spring while the plant is still dormant.

- ❑ 11. A preventive maintenance plan detailing how invasive or noxious vegetation will be controlled, and how predation of the mitigation plantings will be prevented. The plan shall explain the measures that will be taken if a problem with invasive or noxious plants or predation presents itself during the construction or monitoring period. If there is a problem with *Lythrum salicaria* (purple loosestrife) in the watershed in which the proposed mitigation site is located, the Program may not approve mitigation involving the establishment of an emergent freshwater wetland system because of the likelihood of failure due to invasion by this species. If this is the case, contact Virginia Kop’Kash at (609) 777-0454 or at gkopkash@dep.state.nj.us to discuss possible options. Listed below are several devices/structures that may be incorporated into your plan to control problems resulting from the presence of deer, geese, rodents, and rabbits on the mitigation site;
 - deer fence
 - goose fence
 - snags for raptors
 - snake hibernaculum

- ❑ 12. A metes and bounds description of the proposed mitigation site. The metes and bounds description shall include the transition area required under N.J.A.C. 7:7A-15.
- ❑ 13. An estimate of the actual cost of carrying out the construction of the mitigation project. The cost estimate should include but is not limited to the value of the land, engineering costs, environmental consultant fees, attorney fees, site preparation costs, construction costs, planting costs, supervising construction fees, and monitoring costs. The cost estimate of the project will be used when determining the amount of the financial assurance required.
- ❑ 14. A site plan for the mitigation project which includes:
 - i. Project location within the region;
 - ii. The lot and block number of the mitigation project location;

- iii. Existing and proposed elevations and grades of the mitigation site and, when necessary off-site elevations and grades. All existing and proposed elevations and grades must be shown in at least one foot intervals. The slope shall be no greater than 10:1 along a created transition area as well as along any berms that are intended to function as water control structures or berms created along a stream;
 - iv. The transition area required under N.J.A.C. 7:7A-15 (50/150 foot) shown clearly;
 - v. A detail that shows, or a statement indicating, the soil amendments and the seed stabilization mix to be used on the mitigation site. The seed mix shall not include any fescue, deer tongue or reed canary grass. The seed mix shall either be a mixture of native non-invasive plant species or shall include an annual rye grass;
 - vi. A statement certifying that, following grading of the site, a disc will be run over the site to eliminate compaction;
 - vii. An explanation of how micro-topography will be created on the mitigation site. For example a cultivator or a bedding harrow could be used to create micro-topography;
 - viii. Pre and post construction plan views and cross sectional views of the mitigation site; and,
 - ix. Location of monitoring wells and/or stream gauges that will be used to monitor and record the hydrology of the mitigation site before and after construction is complete.
- ❑ 15. A construction schedule including projected dates of excavation, planting, fertilizing, etc.
 - ❑ 16. A draft conservation restriction that meets the requirements of N.J.A.C. 7:7A-15 . Contact Virginia Kop’Kash at (609) 777-0454 or email her at gkopkash@dep.state.nj.us for a model that has been approved by the Department.
 - ❑ 17. Financial assurance that meets the requirements at N.J.A.C. 7:7A-15. .
 - ❑ 18. Certify the proposed mitigation will not adversely affect properties, which are listed or are eligible for listing on the National Register of Historic Places. If the mitigator before or during the course of mitigation work encounters a probable historic property that has not been listed or determined eligible for listing on the National Register, but which may be eligible for listing on the National Register, the permittee shall immediately notify the Department and proceed as directed by the Department.

Proposal packages shall be submitted to:

New Jersey Department of Environmental Protection
Land Use Regulation Program
P.O. Box 439
Trenton, New Jersey 08625-0439
Attn: Virginia Kop’Kash